Meeting Summary



Upper Petaluma River Watershed Flood Control Project Scoping Study

Subject: Stakeholder Meeting #3

Prepared For: Sonoma County Water Agency

Attendees: See Sign-in Sheet

Prepared By: RMC

Date/Time: December 8, 2011; 6:30 pm

Location: Lucchesi Community Center, Petaluma

Meeting Objectives:

• Review project concepts with stakeholders

Discuss and obtain feedback prioritization process and study area priorities

Attachments

Attachment A: Meeting Agenda

Attachment B: Presentation Slides

Attachment C: Meeting Attendees (from sign-in sheet)

Discussion Items

This summary is of agenda items 8 and 9 as shown in Attachment A. A copy of the slides presented and made available to attendees is included as Attachment B. The names of meeting attendees that signed-in are included in Attachment C.

Zone 2A Committee Chair Ted Cabral opened this portion of the meeting.

8. Upper Petaluma River Flood Control Project

A. Overview and Review of Project/Scoping Study

Kent Gylfe introduced himself as Sonoma County Water Agency's project manager for the Scoping Study being conducted for the Upper Petaluma River Flood Control Project. This is the third outreach meeting for the Study and Mr. Gylfe provided a brief review of the past meetings noting that the project's success in moving forward hinges on developing partnerships and support for the project. He views the meeting as an opportunity to share information developed to date about the Project and receive comments and feedback on the Project. Mr. Gylfe made some additional points including:

- The first workshop held on April 28, 2011, focused on establishing project objectives.
- A bus tour was conducted by the Water Agency on October 1, 2011 to visit several multi-benefit flood-related facilities within the Laguna Mark West Watershed to help familiarize stakeholders with project concepts.
- The second workshop held on October 5, 2011 highlighted project concepts. A larger outreach and notification effort including mailers to all property addresses that were within potential project areas was completed for this meeting based on feedback in April.

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- The purpose of this third workshop is to briefly review the concepts highlighted in the second workshop as well as describe and discuss the screening and prioritization process conducted for the Study.
- The Project area (Zone 2A) has a historical flooding problem which the Water Agency and City are working to address. There are several areas of severe urban and residential flooding as well as rural areas. Additionally, recent droughts, regulatory requirements, and a reliability study have shown vulnerability in the water supply reliability. The Water Agency Board adopted a Water Supply Strategies Action Plan which identified joint flood control and water supply projects as opportunities to address both flooding and water supply reliability. With that context, the Agency is addressing three watersheds within Sonoma County with similar studies. All of the watersheds have the same core objectives and nearly identical supporting objectives.
- It is not the expectation of this project to eliminate all flooding in Petaluma, but the intent is to implement a project that can provide significant flood reduction with a cost/benefit ratio that is appropriate. The project to be implemented will also ideally attract external funds.
- A project could be a combination of flood control concepts and could be implemented in phases.
- The Scoping Study is the first step in a multi-step process. Future phases will include modeling
 and determining how much flood protection could be provided. The Scoping Study's intent is to
 narrow the range of alternatives studied for feasibility and to establish a roadmap for project
 delivery.

Summary of Draft Project Concepts from October Meeting

Randy Raines, with RMC Water and Environment, introduced posters that had been prepared for the October workshop and described the Frequently Asked Questions handout that had been prepared in response to comments and questions received after the April 28 and October 5, 2011 workshops. Two new memoranda are available for review and describe the concepts as well as the screening and prioritization process and results. The memoranda can be found online. Mr. Raines then continued the presentation by summarizing the eleven concepts that had been identified for the Project and described in the October meeting.

- Q: Where is habitat restoration included?
 - A: Mr. Raines noted that it is included as a supporting objective for the Project. The slides discussed are focused on the concepts that include varying degrees of habitat restoration.
- B. Presentation of Screening and Prioritization of Project Concepts

Mr. Raines re-introduced the screening and prioritization processes. The screening process was described in the October meeting and eliminates concepts that do not achieve the Key Project Purpose, namely to provide both flood hazard reduction and groundwater recharge. Of the eleven concepts, the eliminated concepts were Levee/Floodwall, Bridge Improvement and Debris Removal, and Direct Recharge. Raines emphasized that these are not poor concepts, but that they do not fit this particular Project. The Water Agency or City may pursue these project concepts through other avenues.

Mr. Raines described the prioritization process that was applied to the remaining eight concepts. One aspect of the prioritization process is ranking objectives. The objectives were ranked by the public in the October meeting using the Objectives Prioritization Worksheet. Mr.

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Raines estimated that approximately 30 surveys were completed (*post meeting note correction* – *28 surveys were completed by stakeholders*). The results of the public input were that flood hazard reduction was weighted slightly higher than groundwater recharge, and of the supporting objectives – weighting was fairly evenly distributed, with system sustainability and agricultural land ranked slightly higher than other supporting objectives.

The second step of the prioritization was to evaluate how well each concept satisfied the established project objectives. Score between 0-3 were given to each concept and corresponding objective.

A tool called Criterion Decision Plus was used to combine the objective ranking and concept evaluation to develop a concept priority list. The baseline prioritization results showed that four concepts better fit the objectives of the project. These included 1) Floodplain Modification, 2) Off-stream Detention Storage, 3) Channel Modification, and 4) Bypass Channel. Sensitivity analysis supported this baseline prioritization. Other factors such as cost and implementation feasibility were considered as well when developing the three tiers and special enhancement categories of concepts.

C. Discussion of Screening and Prioritization Process and Recommendations

At this point in the presentation, several questions were asked about the prioritization process and are captured below:

The following are general questions and comments offered by attendees:

- Q: Why does a difference of 0.05 in the prioritization model mean that one concept is better than another?
 - A: Any concept is not necessarily better or worse than another. The scores at this point are based on limited information that broadly defines the concepts. We are attempting to identify concepts that will work, provide multiple benefits, and attract external funding. The higher scores are an indication that a concept has a better chance of doing these things.
- Q: Aren't LID and Policy Review and Development good ideas?
 - A: Yes, they are good ideas which is why they have been included in the enhancement category.
- Q: Does LID help with major flood reduction?
 - A: LID projects are not typically considered effective flood control projects during a 100-year event. They are more effective at smaller events, when the ground isn't saturated. Ground saturation causes additional runoff. LID does provide benefits during smaller flood events as well as other types of benefits, such as water quality benefits, and could be implemented parallel to the concepts more suited for large flood events.
- Q: Benefit to cost ratio should be examined and considered. Many of the lower ranked concepts are relatively cheap to implement.
 - o A: Noted. Benefit to cost ratios will be developed in the Feasibility Study phase.
- Q: The relative scores for the managed floodplain, LID and Policy Review should be elevated. These are the low cost items and should be considered in the mix of projects.

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- A: These concepts are considered enhancement concepts and should be looked at for implementation in parallel with one or more tiered concepts.
- Q: What is the difference between the floodplain modification and managed floodplain concepts?
 - A: The difference between Managed Floodplain and Floodplain Modification was described. Concept 1 (Managed Floodplain) was described as maintaining existing floodplain (continue allowing the area to flood). This concept has been applied to an agricultural area near the Pajaro River that occasionally floods. The agricultural land has been designated as preserved floodplain area, allowing the current land uses to continue but limiting land use changes that could cause additional downstream flooding. Concept 4 (Floodplain Modification) was described using the example of the Denman Project this is an area where terracing was completed to increase storage volume.
- Q: In-stream detention basins should not be thrown out because they can be cheaper than offstream detention storage since there is no conveyance cost. They should be looked at for the extreme upstream areas where the impact is small and they provide ecological benefits.
 - A: In-stream detention basins are in a lower tier of implementation consideration because permitting is difficult and they have a high mitigation and maintenance cost.
 They could be considered for upstream areas if applicable.
- Q: Will the entire list of concepts be evaluated in the Environmental Impact Report?
 - A: No, after the feasibility study, the project concept(s) that is/are selected as feasible for implementation will be described in detail and evaluated in the EIR.
- Q: The 1% storm results in a flow of 9,000 cubic feet per second at the outlet mall. It is critical to
 maintain the flood storage capacity at Denman and upstream of the Army Corps weir to allow
 the downstream Petaluma project to continue to maintain its level of protection.
 - A: Agreed. It will be important to evaluate concepts adequately to make sure that no increased flow downstream results from implementation of a project.
- Q: Would a reduction in flows allow additional Petaluma development?
 - o A: The potential for future development has not been a factor in this evaluation.
- Q: Regarding LID in rural areas can more money be diverted to the Resource Conservation District for managing the rural floodplain through permaculture? This idea could be used to reduce the scale of reduction needed from engineered projects.
 - A: Comment noted.

Mr. Raines described the three tiers of recommended prioritization and reiterated that enhancement concepts such as Managed Floodplains, LID and Policy Review and Development could be considered for implementation in parallel with higher tiered concepts. David Keller mentioned that a parcel-specific mapping tool was utilized successfully in King County, Washington and Arcata. Mr. Gylfe noted that Petaluma's XP-SWMM model will be the modeling tool used for the Feasibility Study.

D. Next Steps

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Mr. Raines noted that this was the last public meeting planned for the Scoping Study portion of the project, and the next steps would be to develop an implementation plan and proceed with the Feasibility Study for the area. Mr. Raines provided some details regarding elements of the Feasibility Study which include identifying alternative locations, hydraulic modeling, field testing, benefit and cost analysis, and alternatives definition and selection. Raines asked that any additional public comment (beyond the 3-minute public comment period following the presentation) be forwarded to his email address rraines@rmcwater.com or by mail to Ann DuBay with the Water Agency by December 16, 2011. Contact information is at the end of the presentation and in notification emails that have been distributed.

Questions and comments regarding next steps are shown below:

- Q: Will there be drawings/maps where floodplain management is taking place and where modification takes place?
 - o A: Yes these are part of the Feasibility Study
- Q: Terracing in Industrial Avenue area is poorly designed. The back-side does not drain and material must be removed from the floodplain.
 - o A: Comment noted.
- Q: Are materials being developed for funding?
 - o A: Yes, external funding will be pursued for implementation of this Project.
- Q: There are things that individual property owners can do to help support the goals of the Project. Complementary projects should be the focus of the Project but all of the ideas and concepts are interrelated. Will climate change impacts be incorporated into the project design?
 - A: The point on interrelated concepts is well taken. It is anticipated that climate change will be considered as part of the Feasibility Study. It will be important to review the assumptions that have been made in the models.
- Q: An integrated approach is critical.
 - o A: Agreed.
- Q: A key recommendation of the Corps analysis in 1969 was that development stay out of the floodplain and this was ignored by the City and County. This approach is entirely based on modifying the watershed system. The example of Tulsa where the City removed development from the floodplain was described along with a notation about the Galloway Report for Mississippi in 1995/96. The Project should look at what can be removed from the floodplain and where development should be prevented.
 - A: (Raines) The managed floodplain concept would prevent future development.
 Removal of structures has not been considered as part of the Scoping Study.
 Preservation of open space will be evaluated.
 - o A: (Cabral) Reduction of the tax base should not be considered.
 - A: (David Rabbitt) There will be another flood. Projects like this are about risk assessment and management.
- Q: Terracing is expensive and permitting is an issue
 - o A: Comment noted.

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- Q: The opportunity to provide written comments is appreciated. Will this project be developed into actions that property owners should take similar to "Slow It, Spread It, Sink It"?
 - A: The intent is to develop the project to a level where outside funding for implementation can be applied for.
- Q: The three enhancement concepts should be the primary concepts moving forward.
 - A: These concepts could be pursued in a parallel track.
- Q: City and County land use policies should be reviewed in the Feasibility Study.
 - o A: Comment noted.

9. Public Comment

Mr. Cabral facilitated the public comment period. Commenters were give 3 minutes to provide comments. The following are comments received from meeting attendees and committee representatives:

- John Cheney
 - Cheney stated that he felt that the Corps' Payran flood project should be finished before
 this one starts. He questioned what effect this Project would have on the Corps' project.
 He noted that he saw vegetation removal in Willow Brook along Redwood Blvd, but that
 the plants were put there as part of mitigation for the Payran project.

David Keller

- o Keller introduced himself as a representative of the Petaluma River Council, and noted he was not on the stakeholder list for the April meeting.
- Keller noted that the Corps calculations for the downtown Petaluma Flood Project are contingent on maintaining the flood capacity upstream. Effects of this Project need to be turned into impacts to the Corps project. If there are changes to storage or flows it will cause deterioration of the Corps project. The Corps project used the 1987 General Plan for development conditions, not the current plan. These assumptions should be reviewed.

JT Wick

- Wick noted that the Friends of the Petaluma River, a group of 2,000 stakeholders was not notified of the meetings.
- Wick also noted that he wants to see the ecosystem projects evaluated in the Feasibility Study.

[Committee Member Comments]

- John Fitzgerald
 - o The Zone 2A Committee and the Water Agency have no control over the Corps project.
- Ted Cabral
 - o Community has spoken loudly about the enhancement concepts, and this will be taken up at the next Zone 2A Committee meeting.

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Upper Petaluma River Watershed Flood Control Project Scoping Study

Meeting Summary

- Cabral reminded the room that the Zone Committee was made up of volunteers and that a polite atmosphere should be maintained.
- The Water Agency has been working hard and dealing with many issues, some of which have just recently come to the awareness of the Committee. Maintenance work is planned to double this coming year over previous years.
- o Rural land owners have a valid concern about being shouldered with the responsibility for project implementation. This factor will be considered moving forward.
- This Project will not eliminate the risk of flooding but working together it can make a difference.

Ned Orrett

Orrett stated that he enjoyed the quality of the spirit of the group tonight and feels confident that a creative solution will be identified.

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Attachment A: Meeting Agenda

AGENDA

ZONE 2A ADVISORY COMMITTEE MEETING December 8, 2011, 4:00 P.M.

1. OPENING/INTRODUCTIONS

Opening comments and introductions by committee chairman

2. PUBLIC COMMENT

Public comment on agenda and non-agenda items

3. APPROVAL OF MINUTES

Committee approval of the July 21, 2011, October 1, 2011, and October 5, 2011 committee meeting minutes

4. SONOMA COUNTY NO-NET-FILL POLICY

Report by Sonoma County Permits and Resource Management Department (PRMD) staff describing the County's current No-Net-Fill policy for unincorporated areas. Committee discussion item.

5. CONSTRUCTED SEASONAL WETLAND PROJECT

Report by Sonoma County PRMD staff describing the scope and purpose of the existing seasonal wetland project constructed in the vicinity of the Willowbrook/Lichau Creek confluence. Committee discussion item.

6. PROJECTS AND BUDGET FOR FY 2012/13

Committee discussion and approval of a recommended FY 2012/13 budget, including new proposed projects.

7. REPORTS/COMMENTS

Reports and comments by committee members and Sonoma County Water Agency and City of Petaluma staff.

8. UPPER PETALUMA RIVER FLOOD CONTROL PROJECT

- A. Overview and review of Project/Scoping Study (SCWA staff)
- B. Presentation of Screening & Prioritization of Project Concepts (RMC)
- C. Discussion of Screening & Prioritization Process and Recommendations (RMC facilitated)
- D. Next Steps (RMC/SCWA)

9. PUBLIC COMMENT (3 minutes per person)

Public comment on agenda items

10. NEXT MEETING

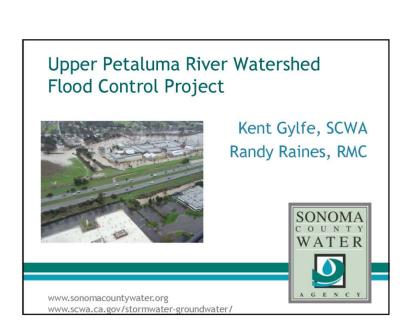
The next meeting date of the Zone 2A advisory committee to be announced

PUBLIC COMMENT: The committee invites public comment, as indicated above. Additional public comment is welcome during committee discussion of individual agenda items, at the discretion of the chair.

AGENDA DOCUMENTS: Any writings or documents provided to a majority of the Zone 2A Advisory Committee regarding any item on this agenda will be made available for public inspection at the office of the Sonoma County Water Agency located at 404 Aviation Boulevard, Santa Rosa, during normal business hours.

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Attachment B: Presentation Slides





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Presentation Purpose

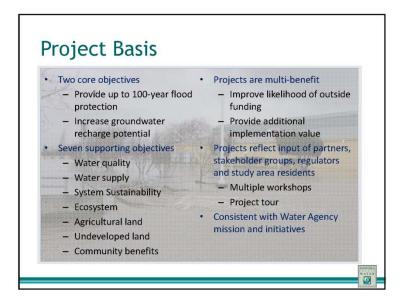
- Review flood and groundwater project concepts
- Describe screening and prioritization process and results
- Solicit input on concepts, and screening and prioritization evaluation

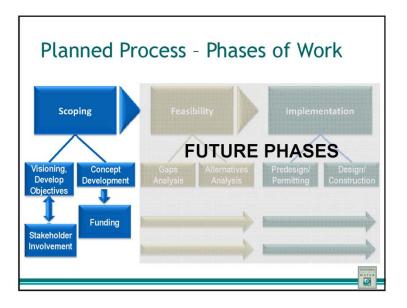




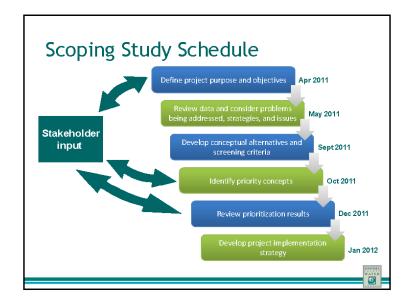
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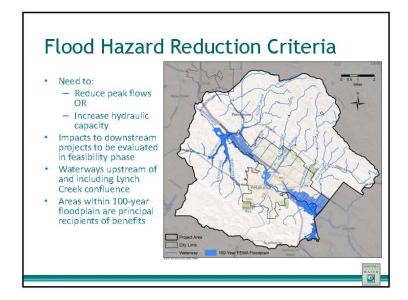


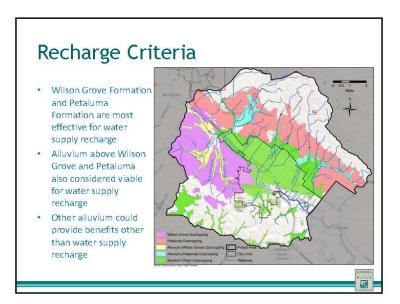
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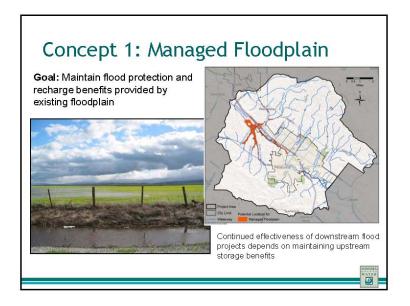


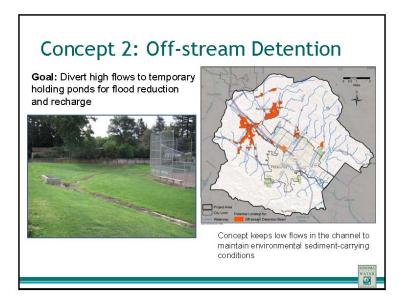
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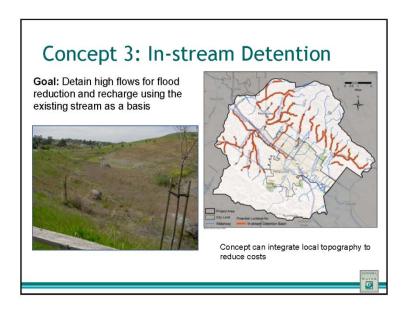


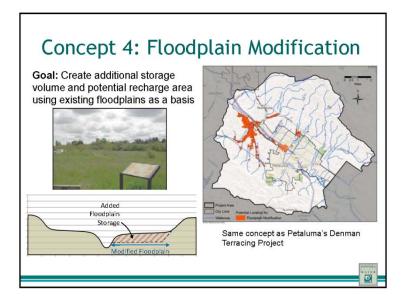
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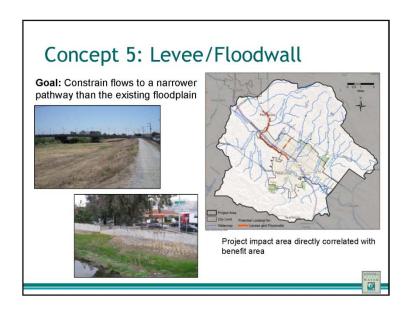


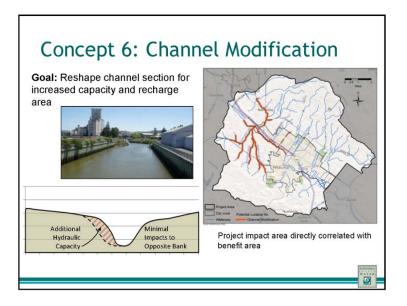
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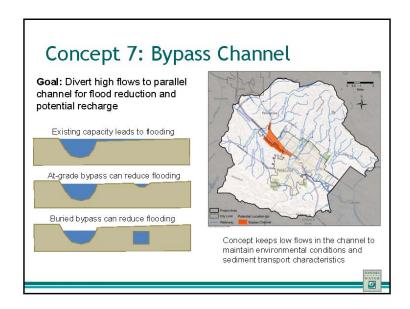


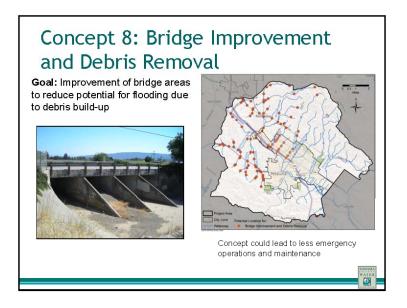
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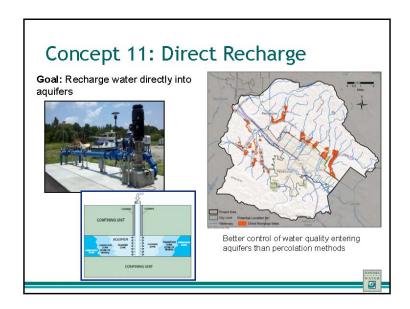


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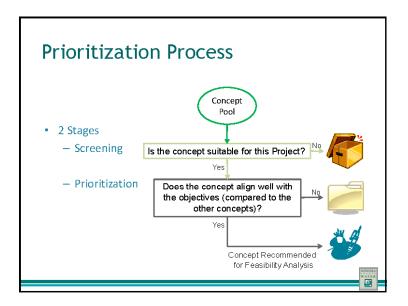


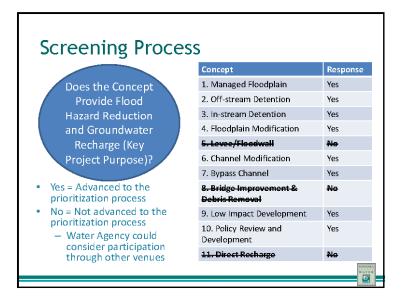
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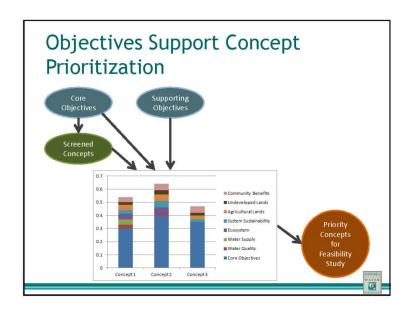


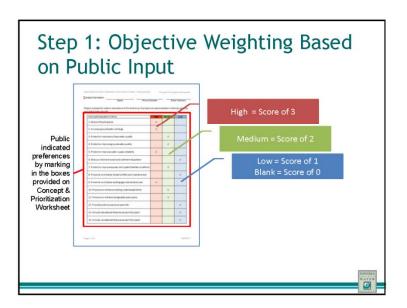
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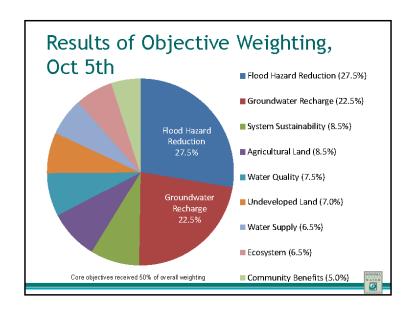


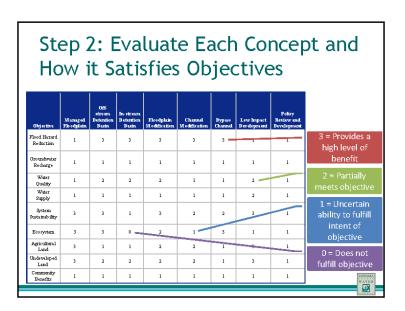
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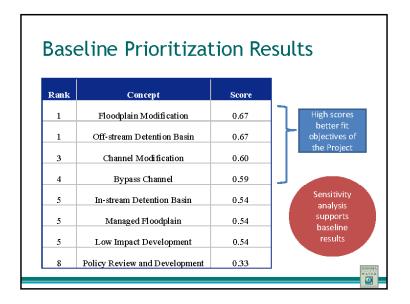


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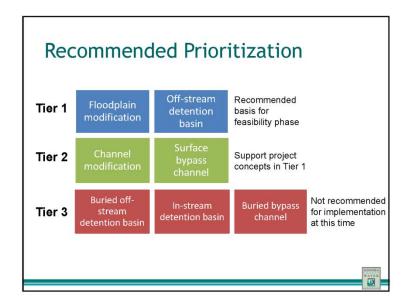
Additional Considerations

- Cost
 - Not considered a fatal flaw
 - Buried off-stream detention costs are high and may not be justified
 - Buried bypass channel costs high and may not be justified
- Implementation Feasibility
 - In-stream detention basins: high mitigation and maintenance, difficult to permit
 - Channel modification: permitting and maintenance less difficult than in-stream detention basins, but relatively challenging

SONOMA WATER

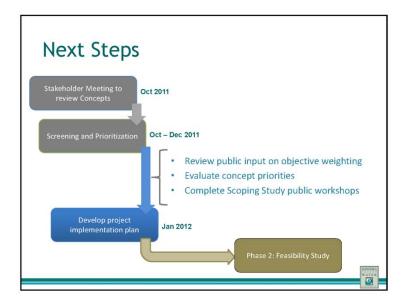
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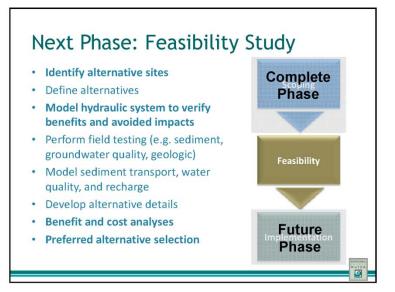
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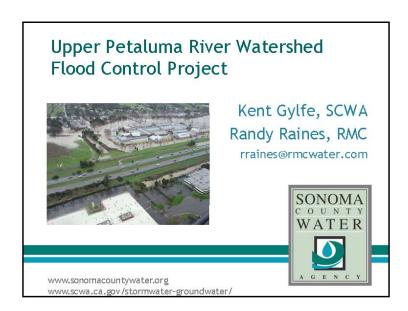


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Attachment C: Meeting Attendees

Meeting attendees included:

Richard Tavernetti

Rich Tavernetti

Richard Borders

Tito Sasaki

Christ Albertson

Marcus Trotta

Unknown

Jason Sweeney

Mike Orton

Michael Bowers

Henry Hansel

John Cheney

J T Wick

Betty Dale

Vaughn Kelp

Louisa Craviotto

Brad Benson

Tom Hammond

Wayne Leach

Susan Kirks

Bob Krieger

Eugene Camozzi

Bill Kortum

Bob Martin

Chris Ward

Grant Davis

David Keller

Jenny Sterling

Chris Cheek

Mark Ferguson

Bill Bennett

John King

Christy Kennedy

Randy Raines

Tim Harrison

It appeared that not all attendees signed in when they arrived at the meeting.

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